



**Department of Agriculture, Madras**

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**BIRD FRIENDS AND FOES OF  
THE FARMER**

BY

P SUSAINATHAN, F.E.S.

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# BIRD FRIENDS AND FOES OF THE FARMER

BY

P. SUSAINATHAN, F.E.S.

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## PART I.—INTRODUCTORY.

Birds, it must be affirmed, are not a negligible factor in the rural economy of the agriculturist. For, as there are friends and foes in the ranks of the insect hordes that surround the Indian ryot, likewise among birds, there are some that are beneficial or useful to him and others that take a heavy toll of his produce.

It is, however, very desirable as a prelude to explain the general characteristics and the main natural divisions of the feathered tribe from the popular point of view.

*The general characteristics of birds.\**—Birds produce their young from eggs, and do not suckle

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\* Extract from the author's article on "Birds" from the Journal of the Madras Agricultural Students' Union for September 1919.

them. They are warm-blooded like the mammals and possess lungs for breathing. Birds have no teeth and in place of lips they have a strong beak which is a sort of horny sheath that encloses the tongue. Their fore-limbs are modified to form wings. Birds are very much lighter than any other animals of the same size, because they have thin hollow bones to give lightness to their bodies; besides, the bones instead of being packed with marrow, are provided with hollow spaces filled with air which is conducted into them from the respiratory organs by means of thin-walled canals. This condition is specially exhibited in the birds of most powerful flight. However, the bones are large and strong enough to support the muscles, especially those which move the wings. Birds have feet with claws; the beaks and claws have different shapes to suit the nature and habits of different birds. They are clothed with feathers, which make the lightest and warmest of coverings. The feathers of the wings and tail are called *quill-feathers*; those which cover the body are *clothing-feathers*. Water-birds have an under-coat of *down*.

*Natural divisions of birds.*—*Running birds* have long legs, exceedingly strong and muscular and the broad thick toes are pointed forwards so as to form a solid support for running. These birds





dabbling, the mud and dirty water run out at the sides and the grain or insect that is in the mud is caught in the fringed mouth as in a trap. The enormous *Albatross* of the south seas, the largest sea-bird known, measuring  $17\frac{1}{2}$  feet from tip to tip of the wings, met with at immense distances from land, has a pointed bill; it is also an excellent flier. The *Pelican* (*Tam.* Koozhykida) is even more completely web-footed than the foregoing for the web envelopes not only the three fore toes, but even the first or great toe also. Upon the shores of the northern seas, the *Penguins* are to be seen in myriads. They cannot fly, as their wings have no real feathers on them. But the birds use them as fins to swim under water.

*Wading birds* are so called on account of their long naked legs which enable them to walk in water. Most of them live in marshy places and wade through the mire. They are mostly provided with long necks and beaks, so formed as to enable them to catch, notwithstanding their long legs, the small animals on which they feed, namely, fishes, frogs and water insects. Their long slender toes spread out as the bird walks or wades. The adaptability of such feet for walking on the soft mud or sand at the bottom of the water is evident; short feet would naturally sink in. Examples:—*Snipe* (*Tam.* Ullān),



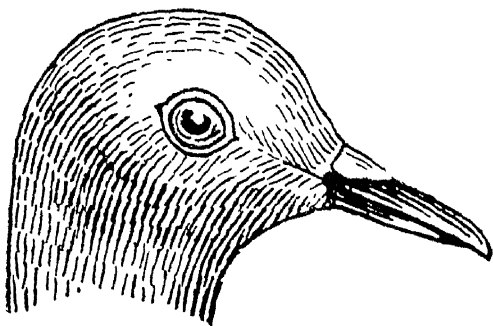


FIG. 2. Head of *Wood-pigeon* to show the scaly covering at base of upper mandible. (Original.)

*Stork* (*Tam.* Nārai : *Tel.* Konga), *Crane* and *Heron* (*Tam.* Naravān ; *Tel.* Nārāyana-patchi).

*Scratching birds* are so called because they find their food by scratching or scraping in the earth. These birds too have three toes, two pointing forwards and one backwards, the hind toe being raised above the level of the three front toes. Their feet have strong stout claws provided with short and blunt nails. These birds always march about in search of food—grains, worms, grubs, etc., which they scrape out of the ground. The *Pigeons* (*Tam.* Pura) have a weak membranous beak; they are characterized by having a scaly plate, covering the base of the upper mandible. (Vide fig. 2.) They are mostly birds of powerful flight. They can render valuable service, especially in time of war by carrying messages to great distances at the rate of 50 miles an hour. They are strictly monogamous and are as a rule gregarious birds, often living in large societies. The Indian *Rock Pigeons* (*Tam.* Kōvilpura) sometimes migrate in thousands darkening the air by their flocks. The name *Gallinacean* (*Latin*—gallina : hen) has been given to a subdivision of the birds of this group, on account of their greater or lesser resemblance to the hen which has been taken as the type of this group. Hens in Europe are supposed to have originally gone from India as well as peacocks and pheasants. They

are heavy plump-bodied birds with comparatively small rounded wings, weak in flight. The domestic *Fowl*, *Peacocks* (*Tam.* Mayil; *Tel.* Nemili), *Pheasants*, *Partridges* (*Tam.* Kaudāri; *Tel.* Kamuju), *Turkeys* (*Tam.* Vānkōzhi), *Guinea-fowl* (*Tam.* Kinnikōzhi), and *Quails* (*Tam.* Kādai) are typical of this division.

*Climbing birds* have strong muscular legs and each foot has two toes pointing forwards and two pointing backwards. Such a disposition of the toes enables the birds to climb and cling firmly and easily. They use the beak as well as the feet when climbing. Indeed, such birds must be good climbers, for they live usually on the trees in which they must seek for their food. They can only move about awkwardly on a flat surface. *Parrots* (*Tam.* Kili; *Tel.* Chiluka) are characterized by their fleshy tongue which allows them to articulate words. Their remarkable intelligence has justly entitled them to be called the "feathered monkeys." They have a short strong hooked bill, the lower mandible of which is shorter than the upper. Beaks of this kind are nut-cracking bills. (Vide fig. 3.) The sharp upper mandible which is hooked, is very useful for that purpose. The *Cuckoos* (*Tam.* Koel; *Tel.* Kōkila), *Woodpeckers* (*Tam.* Maranguthi), and *Tree-pies* (*Tam.* Mānkoel) are familiar examples of climbing birds.

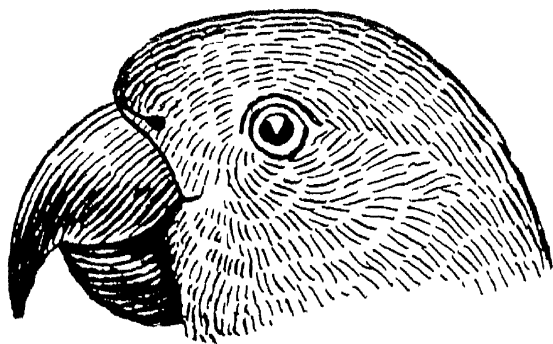


FIG. 3 Nut-cracking bill of *Parrot* (Original.)

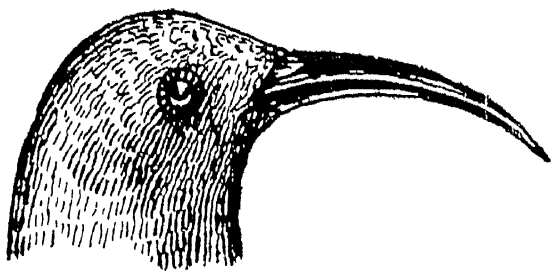


FIG 5 Honey-sucking beak of *Sun-bird* (Original.)

The *Perching* or *Passerine* birds.—They have three long jointed slender toes pointing forwards and a short one pointing backwards. Such toes are made for grasping a branch or twig and not for walking on a flat surface. These birds live almost entirely on the trees hopping from twig to twig and when on the ground they move about with a series of short hops. The peculiar arrangement of the leg and foot tendons enables the bird to hold firmly to the branch without any effort. (Vide fig. 4.) Its own weight is sufficient to keep it secure ; hence the bird rests safe when asleep. The *Crows* (*Tam.* Kākkā), *Ravens* (*Tam.* Andankākkā) and *Sparrows* (*Tam.* Adai-kalānkuruvi ; *Sittukuruvi*) have hard strong bills ; most birds of this group feed on hard seeds ; they use their bill for cracking the husk of seeds. *Night-ingales*, *Blackbirds*, *Thrushes* and *Robins* have slightly curved bills, with a notch or tooth on each side for the purpose of securing the prey. *Swallows*, *Swifts*, *Martins* and *Goat-suckers* have wide gaping bills which act as fly traps. *Humming-birds* and *Honey-birds* or *Sun-birds* (*Tam.* Thānesittu ; *Mal.* Sookhimukhi) are provided with long slender bills. (Vide fig. 5.) They frequent the flowers either for the sweet nectar which they contain or for the insects which live in them. They are mostly of very minute size and include the smallest forms of



the entire class of birds : thus the *Mellisuga minimus* from the Island of San Domingo only weighs about nine grains and measures two inches in extreme length. Its nest is about the size of a small nut and it contains two eggs each nearly as large as a pea.

*Birds of Prey.*—These are the fierce blood-thirsty hunters of the air. They live on the flesh of other animals. They have strong hooked beaks and long and piercing claws called *talons* to seize and tear their prey. (Vide fig. 6.) Some hunt for their food in the day time and therefore called *diurnal*; others hunt after nightfall and are called *nocturnal*. The king of the diurnal birds of prey is the *Eagle* (*Tam. Kazhugu*), with its piercing powerful eyes which do not blink at the most brilliant midday sun and are able to see their victim from an enormous height. The eagle swoops down with unerring aim from its great height upon birds on the wing or lambs, hares and poultry feeding in the field. The *Condor* of South America is one of the largest of birds. It sometimes measures twelve feet from one tip of its outspread wings to the other. The *Falcons* (*Tam. Rājāhli*), *Hawks* (*Tam. Laghudu*), *Vultures* (*Tam. Pinamthinnikazhugu*), *Harriers* and *Kites* (*Tam. Parundhu*) are some more examples of diurnal birds of prey. Nocturnal birds of prey have a soft downy plumage which allows their flight to be quite

noiseless; the openings of their ears are dilated and their big round eyes are directed towards the front. These last come under the general name of *Owl* (*Tam.* Āndhai , *Tel.* Gudlagūba).

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## PART II.—BIRD FRIENDS AND FOES OF THE FARMER.

In a paper read under the auspices of the Indian Science Congress held at Nagpur in January 1920, the author has dealt with "Bird Life in and around Coimbatore, considered especially from an economic point of view" wherein an attempt was made to describe the commonest species of birds of the plains both resident and migratory on the Central Farm and its vicinity with reference to their economic importance.

In the preparation of the present theme the author has largely drawn upon the paper quoted above which could not be published in any of the journals of Northern India, as it was considered to be purely of provincial interest and more suitable as a bulletin of the Madras Department of Agriculture.

The Crow family (*Corvidæ*), consisting of the real Crows, Magpies, Tree-pies, Tits and the like, is an important one from the agricultural view-point. Prominent among the members of this family are the *Jungle Crow* and the *Indian House Crow*.

The Jungle Crow (*Corvus macrorhynchus*, Wagler) (*Tam.* Andankakkā ; *Tel.* Kāki) measures 18 to 20 inches in length. Its entire plumage is more or less glossy black according to season. In its native

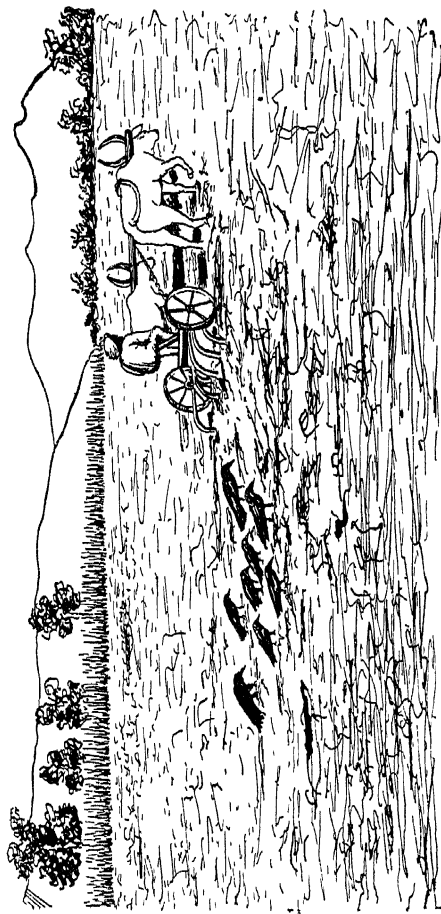


FIG. 7. Crows following a harrow and picking up insects.  
(From Fletcher)

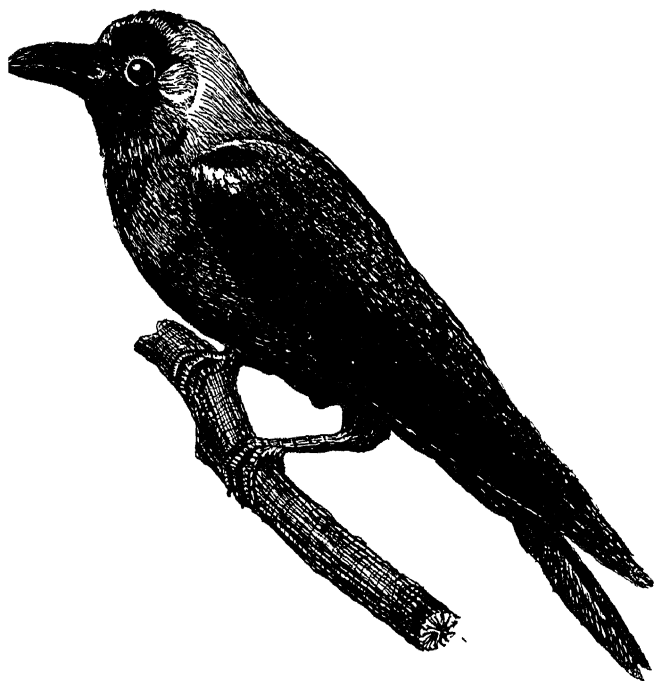


FIG. 8. The Indian House-crow (*Corvus splendens*).  
(After Dewar ; from Fletcher )

haunts which is the scrub-jungle the Corby is a most beneficial bird destroying all sorts of vermin. This bird is a carrion-feeder, and scavenger. In association with the House Crow, it is a follower of the plough (vide fig. 7) and a voracious feeder on insects occurring in cultivated plots. In Malabar and Tanjore, the Jungle Crow has been noted to check to a considerable extent the "Paddy swarming caterpillar" (*Spodoptera mauritia*) and the cutworm of paddy (*Cirphis albistigma*). The Jungle Crow has been observed to breed in Coimbatore during January and February, a second brood occurring in September-November. The eggs, generally four to five in number, green in colour and mottled brown, are laid in a dry grass-lined, roughly constructed nest made of twigs in any convenient situation on tall trees preferably in a fork of the topmost branch.

Its congener, the Indian House Crow (*Corvus splendens*, Vieill.) (*Tam Kākkā* ; *Tel.* Manchi Kāki) is metallic black in colour excepting the collar region which is light ashy-brown. (Vide fig. 8.) The plumage on the ventral side is dull brownish-black and silky to the touch. The House Crow is of a smaller build than the Jungle Crow, measuring only 17.5 inches in extreme length. This crow is a most familiar bird and takes up its dwellings in the vicinity of human habitations. It is a most cunning

thief and a nuisance in houses on account of its pilfering tendencies. Like the Jungle Crow, it is really beneficial to the agriculturist and crop examinations point out to the fact that the amount of grain and other farm produce taken in by this crow is far less than the number of injurious insects. The persistent cawing of this crow in houses is considered in South India as foretelling the arrival of guests. The House Crow constructs its nests in much the same situation as the Jungle Crow. Only four eggs are laid in a nest made of twigs and lined with bits of dry grass or straw. The eggs are light blue, splashed with purplish-brown. This bird begins to breed in Coimbatore during the months of May to July. There is a second breeding season during September to November.

The Indian Tree-pie (*Dendrocitta rufa*, Scop.) (Tam. Mānkoel ; Tel. Gōkurayi) is a near ally of the crows and is included in the same family. This bird measures about 15 to 18 inches. The general colouration is yellowish-brown excepting the forehead, breast, necks and wings which are coloured blackish-brown. Tail and wing coverts whitish-grey, the latter tipped with black. Claws and bill are dull slate-coloured ; irides brownish-red. A good insect hunter, frequenting wooded tracts and gardens. This bird has the habit of working up a tree

systematically searching for insects from one branch to another; very often peers into holes on trees for lizards, caterpillars or slugs and has the habit of peeling dead bark off a stem. It is very often seen alighting on the ground, more especially when it has chanced to spy a crawling or jumping creature. It is a noisy bird and its characteristic chattering is a familiar sound in gardens and jungle areas. The Tree-pie is shot and eaten by a certain section of people in this district, but is not considered a delicacy by the average shikari. The breeding season commences late in March, and newly hatched birds have been observed even as late as the third week in August. The nest is a crude construction on the outside, but the cup-shaped depression in the middle is lined with dry grass. As a rule the eggs are five in number and coloured light-green mottled with reddish-brown.

The Babbler family (*Crateropodidæ*) which comprises mostly of insectivorous birds, includes the Laughing-thrushes, Babblers, Bulbuls, etc.

The commonest species of Babblers in this district are the White-headed Babbler (*Crateropus griseus*, Linn.) (*Tam.* Kallu-kuruvi) and the Jungle-Babbler (*Crateropus canorus*, Linn.) (*Hind.* Sathbhai; *Mal.* Chapōlatchi) known as Seven Sisters. These associate in flocks and are very noisy.



The White-headed Babbler occurs in all sorts of low vegetation as well as on trees. It is also quite commonly seen in cultivated fields and gardens. A bird of confirmed insectivorous habits. The White-headed Babbler was once observed attacking a small water snake *Tropidonotus* and in another instance killing a full-grown hawk moth caterpillar. The smaller species of Cuckoos parasitise this Babbler's nest. The nest consists of twigs and stiff grass-stalks and is constructed hidden away in low bushes. As a rule the bird lays three eggs. Breeding season, from May to July.

Another important member of this family is the Madras Red-vented Bulbul (*Molpastes haemorrhous*, Gm.) (*Tam.* Bulbul-kuruvi, Kondalathi; *Mal.* Irattathalachi; *Tel.* Pīkili pitta), which, as its name indicates, has a large crimson spot under the tail-coverts. The crest is glossy-black, as also the head, chin and portion of neck; breast brown. Abdomen greyish-white in young and whitish in adults. Irides brown. Total length about  $7\frac{1}{2}$  to 8 inches. This Bulbul is a constant frequenter of gardens. A good deal of small berries is eaten by this bird mostly bēṛ fruits (*Zizyphus jujuba*) and mulberry. Generally found in pairs. It is easily tamed. This Bulbul has been noted by Rao Sahib Y. Ramachandra Rao as one of the agents responsible in the dissemination of Lantana





FIG. 9. The Black Drongo or the King-crow  
(*Dicrurus ater*). (Original )

seed on the hills. But its notorious insectivorous habits more than counterbalance its undesirable fruit-eating tendencies. The nest is an open one, constructed sometimes in brushwood and sometimes on forks of trees. Breeds throughout the year excepting the colder months of October to December. Three pinkish eggs splashed with brown are laid in a moss-lined nest.

The Drongos (*Dicruridae*) which come next, are readily distinguishable by their adult plumage being more or less entirely glossy-black. The forked tail as a rule consists of ten feathers. All the members of this family are decidedly beneficial and being common in cultivated tracts form a useful check to the spread of noxious insects. The racket-tailed Drongo (commonly occurs on the Taliparamba farm) of sub-montane regions is not found at Coimbatore, the commonest species in this district being the Black Drongo or the King-crow (*Dicrurus ater*, Herm.) (*Tam.* Karichān, Karungurivi ; *Mal.* Karadān ; *Tel.* Mangali-pitta) (vide fig. 9), which is bluish glossy-black including the bill and feet and claws. Young birds have a suffused dirty brownish upper plumage and white streaks under tail-coverts. Irides red. The adult bird measures 12 to 13 inches in length. A most familiar bird in jungle and cultivated area alike. An early

riser, whose notes are heard as early as 4 a.m. in fair weather. A purely insectivorous bird destroying injurious creatures in enormous numbers. In company with Kites and Crows and Mynahs, this bird is sure to be present whenever winged termites swarm after the rains. Persistently attacks Crows and Kites and succeeds in keeping them away from its perches. The nest is constructed mostly in forks of trees hidden away among the thick foliage. Breeding commences in early April and is generally over by the beginning of August. The eggs are four to five in number and are white. The mother bird is a ferocious creature during the breeding period and resents intrusion in a marked degree, attacking even large-sized birds and mammals when these approach the nest.

The family *Sylviidae* consists of Warblers, Tailor-birds and the like, which, in spite of their small size, do an incalculable amount of good to the horticulturist in a special way by preying on his insect enemies, mostly the minute forms that do not appeal to the average-sized bird. The Indian Tailor Bird (*Orthotomus sutorius*, Forst.) (*Tam.* Pākku-sittu) is a representative of this family. The total length of the bird is 5 inches. General colour yellowish-green. Crown and thigh rufous. Eyes yellowish-red, sometimes bright-red. Ear-coverts shiny-grey. Two





FIG 10. The Rufous-backed Shrike (*Lanius erythronotus*) (Original.)

hidden black patches below ear-coverts prominent, when the bird utters its call. This beautiful little bird is common in hedges and gardens and wherever there is sufficient vegetation to provide food and safety. The sustained metallic call of this little bird is a familiar sound in gardens. A powerful light carried into gardens at night dazzles this bird which can then be easily caught in the hand. This bird was observed feeding voraciously on the nymphs of the mango hopper pest (*Idiocerus* spp.) at Vellore Cantonment in March 1918. Four birds were found working up a single infested mango-tree. A single broad leaf or two or three small leaves are sewn together with any sort of fibre and the interior of the nest is lined with fleece or odd bits of cotton, spiders' egg-cases, etc., and four pink eggs are laid at the bottom of the nest. The Tailor Bird breeds during the south-west monsoon at Coimbatore, roughly from May to September.

The Shrikes or Butcher-birds (*Laniidae*) are an interesting and highly beneficial group of medium-sized birds which possess a strong notched bill. The Rufous-backed Shrike (*Lanius erythronotus*, Vigors.) is a member of this family. (Vide fig. 10.) The scheme of colouration is conspicuous and warning. Back and scapulars deep rufous; wing coverts and tail purple to black, the latter tipped with brown.



lower plumage generally rufous, merging into white towards the abdominal region. Length 10 inches.

This Shrike is a typical Butcher-bird impaling its prey on acacia and cactus thorns before commencing to make a meal of it. Beetles of the families *Buprestidæ* (Jewel beetles) and *Scarabacidæ* (Dung-roller beetles) have thus been found impaled alive. Two species of grasshoppers (*Cyrtacanthacris ranacea*, the black-spotted grasshopper, and *Catan-tops* sp.) were also taken by this bird and impaled. The Rufous-backed Shrike is a solitary bird found in all wooded areas and in low vegetation. It is an inveterate hunter of insects and lizards. Easily tamed in cages when it approaches and snatches away the prey from the hand. Nests are constructed among low-growing trees; four eggs are laid as a rule. Breeding season from March to September.

The Orioles (*Oriolidæ*) comprise a family of arboreal birds which rarely descend to the ground. Their food consists of both fruits and insects which they find on the trees. They possess very conspicuous and bright plumage. They are, however, of some value to the horticulturist. The most common representative of this family in the plains is the Indian Oriole (*Oriolus kundoo*, Sykes.) (*Tam.* Manja-kuruvi; *Mal.* Manja-pakshi; *Tel.* Vanga-pandu). (Vide fig. 11.) General colour of male

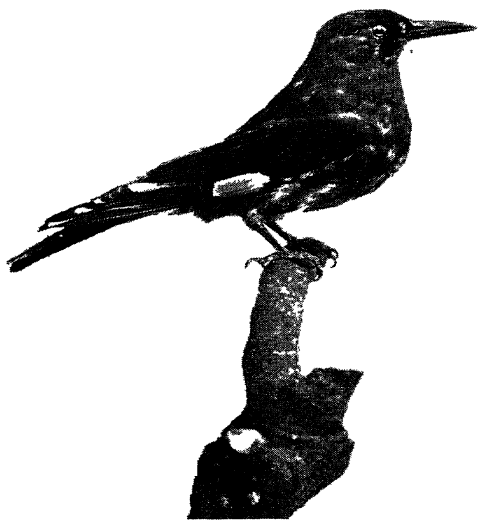


FIG 11 The Indian Oriole (*Oriolus kundoo*).  
(Original )

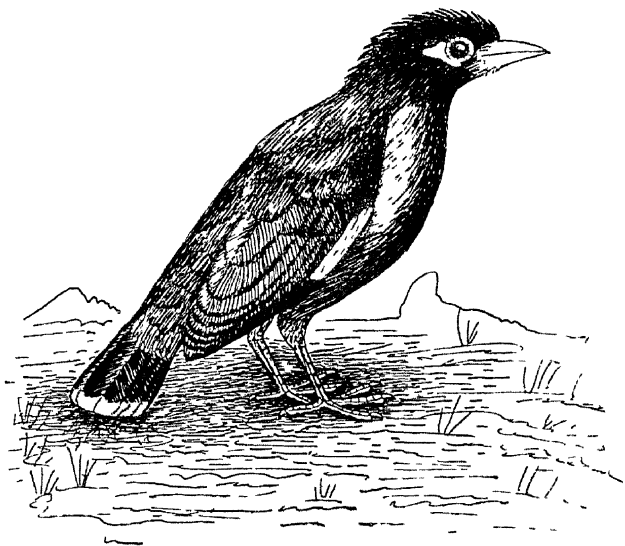


FIG. 12. The Common Mynah (*Acridotheres tristis*). (From Fletcher)

yellow ; lores, spots to eyes, median tail-feathers and wing-quills black, barred with yellow. The female is differently coloured in having the back and sides suffused with light-green. Irides red. Total length never exceeds 10 inches, but is sometimes less. A constant visitor to banyan and peepal trees during fruiting season. Takes in a considerable quantity of insect diet. A cup-shaped nest of grasses and moss and odd bits of bark is constructed in the fork of a tall tree. About four eggs are laid. Egg white, mottled brownish-black. This Oriole breeds from April to August.

The Starling family (*Sturnidae*) is again important from the agricultural view-point. The common Mynah (*Acridotheres tristis* L.) (*Tam.* Mynah ; *Tel.* Goranka) (vide fig. 12) is quite a familiar bird in the plains. In total length this bird measures 10 inches. General colouration deep-brown. Crest, neck and upper portion of breast, shiny-black. Wings and tails deep-brown barred and streaked with white. A most useful bird on the whole to the agriculturist although frugivorous occasionally. A bird to be encouraged. Easily tamed ; a good imitator of the human voice. Advantage is taken of holes in trees and buildings for locating the nest. The interior of the nest is lined with dry grass and moss and in fact any soft material. Four to five eggs are usually laid.

The Flycatchers (*Muscicapidae*) form an important group of insectivorous birds. The young of both sexes of the Indian Paradise Flycatcher (*Terpsiphone paradisi*, Linn.) (*Tam.* Vāḷ-kondalāthi ; *Tel.* Donga-pikilipitta) are chestnut brown with a bright blueblack metallic-hued crest. Breast lighter coloured. The colour of the female is permanent ; a gradual change in the colouration of the male takes place when at the end of a long period the bird assumes a milky-white appearance except for the head and crest which retain the metallic blue-black sheen. General colour of wings and tail black, streaked with white. The median tail-feathers of the adult male grow to the length of nearly 12 inches, during the breeding season, when the male bird presents its fully attired nuptial plumage. Total length of male 21 to 22 inches ; female 9 to 10 inches. An insectivorous bird. A frequenter of shady trees in gardens. Usually a mute bird, noiselessly catching insects on the wing. Commonly found in pairs but also singly. The various stages in the development of the male is a puzzle to the amateur. Breeds in Coimbatore during the south-west monsoon. Four to five pink eggs mottled with brown are found in a small depressed bowl-shaped nest built of sticks and placed in the fork of a tree and lined with soft material.

The Weaver-bird family is represented on the Central Farm by the Baya or the Common Weaver-bird (*Ploceus baya*, Blyth.) (*Tam.* Thookunānkurivi; *Mal.* Elā; *Tel.* Bungāru-pitchuka). This Weaver-bird measures about 6 inches in length. General colour light-yellow, barred and streaked with dark-brown. The primaries and tail-feathers tipped with light-green. Cheeks pale, light-brown. The lower plumage light-yellow throughout. During the breeding season, the male plumage undergoes a thorough change when the colour gets to bright-yellow at the nape, breast, crown and forehead; and the brown of the normal colouration turns to intense blackish-brown. A gregarious bird living in large societies.

It is a grain feeder and is in some way injurious to agriculture, but appears to be of neutral value as this bird has a preference to wild grass seeds, but in Malabar it appears to be a major pest of paddy. The Baya is snared into nets where millets are strewn and sometimes they are caught by the dozens by local shikaris known as "vėdāns." When available in large quantities the bird makes a savoury dish for people of this district. The young are readily tamed. Fibre from the various palms which the bird secures on the wing as also from long-bladed grasses like sugarcane is made use in the

construction of the nest which is woven water-tight and lined with soft material on the interior portion. Single nests are rarely found, as the birds keep together especially during the breeding season, which is May to October at Coimbatore. Three eggs are commonly found in a nest.

*Fringillidae* or the family of Sparrows are as a class injurious to standing crops and are a perfect nuisance in houses. The House Sparrow (*Passer domesticus*, Linn.) (*Tam.* Adaikalānkuruvi, Sittukuruvi; *Mal* Arakkili; *Tel.* Oorapitchuka) are sexually differently coloured. Male: head and lores and round the eyes black; cheeks, ear-coverts and neck whitish; breast black; tail brown, tipped with rufous. Female. upper plumage brown streaked with rufous. Lower plumage ashy-white, wing-coverts brown and barred with reddish-white. Total length 6 inches. A bird of the house as its name indicates. The term "aerial rat" is quite appropriately applied to this bird. It is a nuisance in bungalows and is a distinctly injurious bird which does not deserve to be encouraged. A sort of edible confection known locally as "Sittukuruvi lāghyam" is prepared out of the meat of the domestic sparrow and is in wide use among Indian physicians and is supposed to remove nervous debility and to tone up the system. The House Sparrows rarely construct

their nests on trees. Holes in walls, wells and interstices in rafters and beams in buildings are made use of by the birds. The nest is a crude construction and is not usually well lined with soft material. The House Sparrow is a prolific breeder laying about half a dozen eggs. The eggs are greenish-white and mottled with brown.

The Lark family (*Alaudidae*) is commonly represented on the Central Farm by two members; the Indian Sky Lark (*Alauda arvensis*, Frankl.) (*Tam.* Vānambādi; *Tel.* Bhārata-pitta) and the Ashy-crowned Finch Lark (*Pyrrhuloxia grisea*, Scop.).

The general colouration of the Indian Sky Lark is dark-brown; wing-coverts tipped with brownish-grey. Lower plumage fulvous, sometimes dirty white; cheeks, breast and throat streaked with black. Irides dark-brown. Total length  $6\frac{1}{2}$  inches. The song of the Sky Lark uttered on the wing is a familiar sound on the country side. The Sky Lark commonly frequents roads and lawns adjoining jungle and cultivated tracts. Found sometimes in small groups. A voracious feeder on termites. Nests are constructed of fine dry grass in a hole or crack in the ground. Three or four eggs coloured yellow and mottled with purple are usually laid. The breeding season is generally over before the commencement of the south-west monsoon.



The upper plumage of the male of the Ashy-crowned Finch Lark is brownish. Median tail-feathers light-brown ; the rest dark-brown. Wings brown, tipped with grey. Neck, breast, abdomen and under tail-coverts glossy chocolate. Females more uniform in colouration, brown predominating in the upper plumage ; lower plumage fulvous, streaked faintly with brown. Length about  $5\frac{1}{2}$  inches. Frequents open grounds and roadsides. Mostly found in pairs. Breeds both before and after the south-west and north-east monsoons. The nest is placed in cracks and holes in fields and lawns ; two or three speckled brownish eggs are laid on a soft bed of dry grass and feathers.

The *Nectarinidae* consist of Sun-birds (*Tam.* Thāne-sittu ; *Mal.* Soochi-mukhi ; *Tel.* Tēna-pitta) of which there are two species quite common in this locality. The Large Purple Honey-sucker or Loten's Sun-bird (*Arachnechthra lotenia*, Linn.) is a beautiful little bird. The upper plumage of the male is greenish, displaying violet and lilac in certain lights. Wings dark-brown. Tail blue. Breast metallic-blue and glossy-green. Lower plumage chocolate-brown. Female : upper plumage greenish-brown. Lower plumage creamy-yellow. Tail blackish and margined with white. Length about  $5\frac{1}{2}$  inches. Visits blossoms for the sake of the honey and the insects they



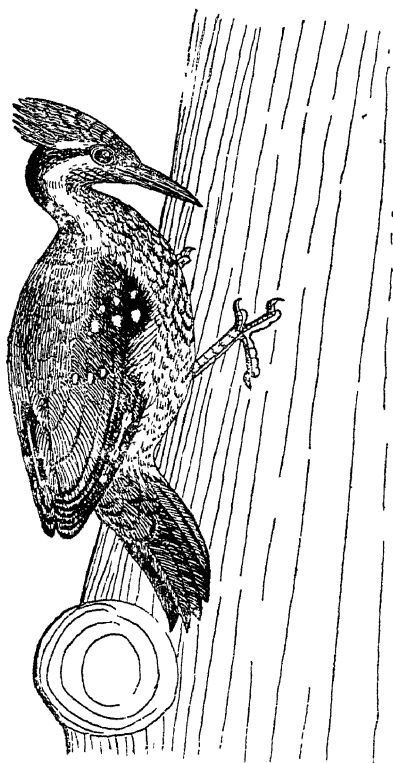


FIG. 13 The Golden-backed Woodpecker (*Brachypternus auranus*). (From Fletcher )

contain incidentally cross-pollinating the flowers. Two eggs, dirty brownish-white, mottled with brown, are laid in a small nest constructed with grasses and roots and fibres interspersed and lined in the interior with cobwebs, spiders' egg-cases and pieces of lint from wild *Malvaceæ* and *Asclepiadaceæ*. The nest has a hood as a sort of protection against foul weather.

The Purple Honey-sucker or the Purple Sun-bird (*Arachnechthra asiatica*, Lath.) resembles the previous species in external appearance except for the general size and build. Length  $4\frac{1}{2}$  inches. The bill of this bird is  $\frac{7}{8}$  of an inch long, whereas the bill of the previous species is 1.3 inches. The habits and nidification of this Sun-bird are much the same as the foregoing species with which it can be classified as a useful pollinator and a vigorous insect-hunter. Sun-birds are decidedly beneficial and deserve every encouragement.

Woodpeckers (*Picidæ*) are distinguished by their climbing habits and their shrill chattering cry. The Golden-backed Woodpecker (*Brachypternus aurantius*, Linn.) (Tam. Maranguthi; Mal. Marakothan; Tel. Vadrāngi-pitta) is the sole representative of this group on the Central Farm. (Vide fig. 13.) Its forehead and crest are black. Feathers of the crest margined with scarlet. Hind neck and upper

plumage black, scapulars golden-yellow, intermixed with orange, wing-coverts golden olive, mottled white. Neck black, striated white. Breast buff, edged with black. Tail velvety black. A regular hunter after wood and bark-boring larvæ and ants on trees. The song of this Woodpecker is a regular continuous chattering sound. It is a good climber and is commonly seen ascending stems of palmyra in quest of caterpillars and grubs. White and shiny eggs, two to three in number, are laid in holes on trees.

The Roller family (*Coraciidae*) comes next. A typical member of this group is the Indian Roller or the Blue Jay (*Coracias indica*, Linn.) (*Tam.* Pachai-kāдай, Kattu-kadai; *Tel.* Pāla-pitta) whose upper plumage and breast are deep rufous. (Vide fig. 14.) Wing and tail-feathers glossy-blue. Head, throat and sides of head brown. Irides brown. The bird measures a little more than a foot in length. This is a bird that is often killed for the sake of its plumage, but due to its insectivorous habits it deserves protection. It has been observed to eat the Paddy Grasshopper (*Hieroglyphus banian*) in numbers in the Chingleput district. It readily comes into fields where perches are provided and each bird has its own beat, and it rarely changes its wonted position unless it is disturbed too often. The Roller



FIG. 14. The Indian Roller or the Blue Jay  
(*Coracias indica*). (Original.)



is used for medicinal purposes in certain tracts of South India and its meat is supposed to purify the blood. The feathers of this bird, charred and administered in the form of a powder to cattle is said to be effective in checking the spread of infectious diseases. Holes in trees and old buildings are made use of by this bird for preparing the nest. Any sort of soft material is used in lining the interior. The eggs, four in number, are pure white and glossy.

Allied to the previous family in structure and form, although not so much in habits, is the Bee-eater (*Merops viridis*, Linn.) (*Tam.* Panjuruttān), which is green in general colouration interspersed with blue. Crown, upper plumage and nape ferruginous; throat and cheek bluish. Irides crimson; total length about 6 to 7 inches. One of the little birds found commonly perched on telegraphic wires. Injurious to bee-hives, this bird being able to dispatch a number of bees at a time. Frequents apiaries for this purpose. A distinctly injurious bird in this respect. Breeds from late January up to the beginning of the south-west monsoon in holes on tank bunds, on steep and sandy projections over rocks. Usually four eggs are laid. The eggs are shiny-white.

The Blue-tailed Bee-eater (*Merops philippinus*) resembles the previous Bee-eater in general colouration.



and build except that the total length of bird is about 9 to 10 inches and that a band passing through the eye and ear-coverts is black. The tail is blue. Rarely a solitary bird. Found mostly away from inhabited quarters. Highly injurious by destroying useful insects. Nests in sand-banks and tank-bunds as the foregoing species.

The King-fishers (*Alcedinidae*) (Tam. Meen-kuthi; Mal. Meen-kallathi) are represented on the Central Farm at Coimbatore by a few species. As a general rule, King-fishers restrict their diet to fish and are therefore of neutral value to the cultivator. Some, however, are distinctly beneficial by feeding on noxious insects, while none of this group is injurious.

The Indian Pied King-fisher (*Ceryle varia*, Strick.) has its crest, a streak from bill to ear-coverts, nape and crown black. General colour white, vividly mottled and streaked with black. Total length about a foot. The Pied King-fisher is a frequenter of rivers and large sheets of water in this district. It has the habit of hovering over the water when a fish is spied. It has a discordant chattering cry. The bird is rarely solitary, but often found in twos and threes. This King-fisher is of neutral value as it feeds almost entirely on small fish. Four to five glossy white eggs are laid in a grass-lined hole on the sandy bunds of tanks and rivulets.





FIG 15. The White-breasted King-fisher (*Halcyon smyrnensis*). (Original)

The common King-fisher (*Alcedo ispida*, Linn.) has its head streaked with dark-brown and blue. Neck bounded on both sides with white. Rump, back and tail blue. Wings bluish-green. Under-side of tail brown. Throat and chin white. Total length 7 inches. A bird of secluded habits, taking its perch on all sorts of vegetation or projection near ponds, rivers, stagnating sheets of water, shallow wells, etc., and darting down on any small fry that could be seen in the water. A very active little bird, tilting the abdomen up and down when resting on its perch more especially when it is disturbed. This bird is of neutral value although a certain amount of water-insects are taken. Excavates a hole in banks of rivers and streams and lays about half a dozen eggs at the terminal chamber. Regurgitated skeletons of fish form a bed for the eggs to rest upon. This bird breeds in Coimbatore abundantly on the banks of the Noyyal river usually during December to early June and stops breeding before the commencement of the south-west monsoon for obvious reasons. Probably a second brood from August to October.

The White-breasted King-fisher (*Halcyon smyrnensis*, Linn.) measures about a foot from head to tail. (Vide fig. 15.) The whole of the head, including the cheeks, crest, crown and nape rich brown. Breast,

chin and throat white. Upper surface of tail blue. Bill red, and irides brown. The White-breasted King-fisher does not often frequent sheets of water. During the dry season in the elevated portions of the district where every tank and stream is dried up, this bird could be still seen perching on any overhanging branch or pile of earth or stones on the lookout for grasshoppers, crickets or worms. This is an insectivorous bird although fish is its normal diet. Breeds, as is usual with King-fishers, in holes on the steep sides of river banks, laying about half a dozen white eggs.

The Hoopoes (*Upupidae*) are a beneficial group of birds represented in South India by the migratory and rare European Hoopoe (*Upupa epops*) and the very familiar Indian Hoopoe (*Upupa indica*) (*Tel.* Kūkuduguwa), whose crest is brown tipped with black. (Vide fig. 16.) Upper plumage and wings deep brown, the wings banded with white or buff. Abdomen rufous; irides brown. Total length about a foot. This is a familiar bird, mostly found feeding on the ground, but perching often for rest on trees and buildings. Rubbish heaps and termite mounds are favourite resorts of this bird. It has the curious habit of inserting its long bill into crevices in the soil to search for insects and grubs. The call of this bird resembles the sound "Hoop-hoop" repeatedly



FIG. 16. The Indian Hoopoe (*Upupa indica*).  
(Original)



uttered. This is a distinctly insectivorous bird and is to be protected and encouraged in gardens and parks and cultivated fields. The Indian Hoopoe breeds in holes on trees and dilapidated walls of buildings. The base of abandoned mud-walls and crevices in the roofs of buildings are favourite places for the bird to breed in. As many as seven young ones have been seen in a nest at the Agricultural College, Coimbatore, during the month of May. The eggs are azure.

The Jungle Nightjar (*Caprimulgus indicus*, Lath.) belongs to the Goatsucker family (*Caprimulgidae*). Total length of bird 12 to 13 inches. Upper plumage grey. Black spots on crown extending on to back. Chin and breast dark. Marginal tail-feathers tipped with white. Lower plumage buff and brown. Irides brown. This Nightjar is found mostly in woodlands and jungle areas, but also occasionally found in unfrequented neglected gardens. It has a peculiar chuckling note mostly uttered on the wing. It is a low-flying bird. Dung-roller beetles have often been found in the crop of this Nightjar. It is a beneficial bird as it checks insect life in cultivated tracts adjoining jungle areas. It breeds from February to June. Two light pink eggs are usually laid.



The Cuckoo family (*Cuculidae*) comprise of the Crow-pheasants, Koels and other parasitic Cuckoos. These have a heavy flight, but are good climbers. The male of the Indian Koel (*Eudynamis honorata*, Linn.) (*Tam.* and *Mal.* Koel; *Tel.* Kōvela) is of a shiny bluish colouration. (Vide fig. 17.) The female spotted with white in a dark-grey background. (Vide fig. 18.) Wings and tail-feathers barred with white. Irides blood-red. Total length about 15 to 17 inches. Found commonly on roadside trees and in and around cultivated tracts, on bushy trees. When *figus* trees are in fruit this bird is sure to be there. A bird recognized and located by the Indian shikari by its characteristic loud and melodious call. A favourite gamebird with the South Indian. The Koel is of neutral value to the agriculturist. The eggs in general appearance resemble those of the House Crow except for the size. Two or three eggs are deposited in a Crow's nest. The Cuckoo's eggs hatch out earlier and the nestlings of Crows are either stifled by the young Cuckoos or at times ejected by them. The Crows bring up the parasites until they are able to fly about.

The Coucal or Crow-pheasant (*Centropus chinensis* Steph.) (*Tam.* Sembugam; *Mal.* Chembōthu; *Tel.* Jemudukāki) is another member of the Cuckoo family. The wings of the Crow-pheasant are bright chestnut. The rest of body in varying shades of bluish-green



FIG 17. The Indian Koel (*Eudynamis honorata*) Male. (Original.)

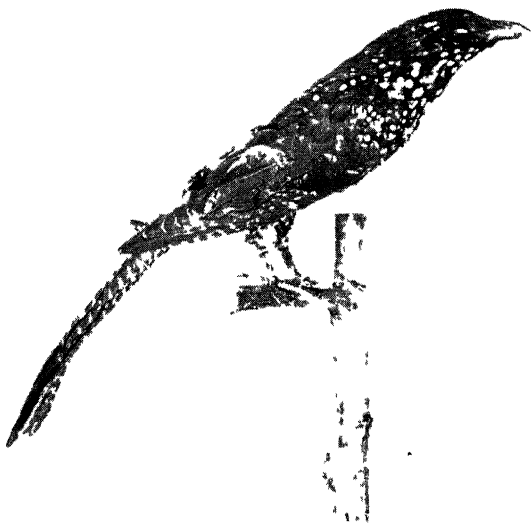


FIG 18. The Indian Koel (*Eudynamis honorata*),  
Female. (Original )

with a pronounced black gloss at the neck, head and breast. Total length of body about 18 inches. Specimens from Malabar sometimes measure 19 to 20 inches. Irides crimson. The peculiar note of this bird resembling that of a Hoopoe but more sonorous is commonly heard in and around cultivated fields and jungles wherever there are leafy trees in abundance. The flight of this bird is awkward and laboured. The Coucal is a good climber and snake-eater. It is a beneficial bird and repays protection. This bird is a delicacy with the local people. The meat when taken by pregnant women is supposed to produce healthy and beautiful children and is therefore held in high esteem. Elsewhere in Malabar and in portions of Tanjore district this bird is never eaten by the higher classes. The Coucal breeds in Coimbatore from April to September. A single nest with eggs has been obtained a few miles from Coimbatore during October. This bird builds its nest among bushy and low trees, a well-grown and leafy jujube tree is a favourite resort. Three whitish eggs are laid in the nest, the eggs are encrusted with a thin layer of a sort of limy substance.

The *Psittaciadæ* or the Parrot family includes a number of bird-pests to agriculture which are a constant menace to standing crops. The family is

represented by the Rose-ringed Paroquet (*Palæornis torquatus*, Bodd.) (*Tam.* Pachai-kili ; *Mal.* Thatha ; *Tel.* Chiluka) which is bright-green throughout with a bright rose ring round the neck in the male and a green collar in the female. The bird measures about 17 inches, of which the tail occupies  $10\frac{1}{2}$  inches. This green Parrot is found in all cultivated areas and is distinctly injurious to fruit and grain. Parrots are mostly gregarious. They take up their station in the vicinity of fields and gardens and do a great amount of pilfering. The ripening earhead of cereals is nipped clean off and carried away to a high perch where it is husked and devoured, in company with others of the tribe who set up a great chattering. The young are caged and tamed and may often be found in itinerating circus companies. The Rose-ringed Parrot when properly trained is a good imitator of the human voice. Natural crevices in trees and buildings are worked up into suitable holes with roundish entrances and a bed of soft material is arranged in the interior. Three to four eggs are usually laid. This Parrot breeds from February to June.

Owls (*Strigidae* and *Asionidae*) (*Tam.* Andhai, Kōttān ; *Mal.* Nathu ; *Tel.* Pasuli-kanti) are nocturnal birds of prey and are reputed to do some good to the farmer by destroying rats and other vermin



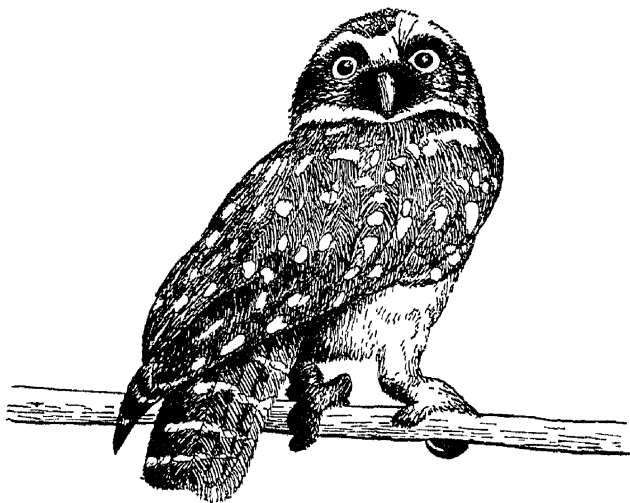


FIG 19. The Spotted Owlet (*Athene brama*)  
(From Fletcher.)

which swarm at night in cultivated tracts. The Spotted Owlet (*Athene brama*, Temm.) is a member of this group of birds. (Vide fig. 19.) General colour blackish-brown; spotted and barred with white. The spots become indistinct and evanescent towards the thigh and lower abdomen. Total length 8 inches. A bird of bad omen with the South Indian. Found in pairs in shady groves and gardens. A shy peering bird during the daytime when disturbed. Crepuscular in habits, coming out from its lair much earlier than others of the family. Highly beneficial as it feeds on rats and mice as also on crickets and beetles. This Owlet makes use of clefts in rocks or buildings, or holes in trees for nesting. The interior is lined with dried grass. Four to five white eggs are laid. The Spotted Owlet breeds from January on to the beginning of the south-west monsoon in Coimbatore.

The Vultures (*Vulturidae*) (*Tam.* Pinam thinnikazhugu; *Mal.* Kazhukan) are scavengers by nature feeding on carcases and other animal refuse and are beneficial in villages especially where they assist the jackal in his useful work. The Black Vulture or the Pondicherry Vulture (*Otogyps calvus*, Scop.) is a conspicuous member of this family although rare in and around Coimbatore. The upper plumage of this vulture is shiny-black; blackish-brown on the wings.



Head red and breast white. Ruff blackish, basal feathers fringed with white. Length a little over  $2\frac{1}{2}$  feet. Found single or in pairs occasionally on carcasses with scores of *Neophron*.

The smaller White Scavenger Vulture (*Neophron ginginianus*, Lath.) (*Tel.* Rāmbandu) is white throughout except the tips of wings which is black. Tinged blackish-brown on the wings. Irides dark-brown. Total length about 2 feet. A bird of slow flight with a peculiar shaky gait on the ground. Adult birds are not unlike a white turkey-hen, at a distance. A foul feeder on human excreta and dead animals. A good scavenger and a bird to be encouraged in towns and villages. A crude nest of large intercrossing twigs is constructed. The nest is usually situated on tops of old leafless inaccessible trees, buildings or cliffs. Two white eggs mottled with brown are laid.

The *Falconidæ* include the Kites, Harriers, Falcons and other diurnal birds of prey. A few are good scavengers, but the majority are distinctly injurious to game and poultry. The Falcons and Harriers are birds of powerful flight; some of these migrate into South India from the Himalayas or Central Asia spend the colder months here and get back to their original haunts where they breed during summer.





FIG. 20. The Brahmany Kite (*Haliastur indus*).  
(Original)

The Brahminy Kite (*Haliastur indus*, Bodd.) (*Tam.* and *Mal.* Krishna-parundu; Garudan; *Tel.* Garut-mantudu) has the head, neck and abdomen white thinly streaked with dark brown. (Vide fig. 20.) Wings light chestnut. Irides brown. Length about 18 to 19 inches. A common bird of the plains. Held in great reverence by the Hindus due to its association with Vishnu. A highly insectivorous bird: observed to keep down the Paddy Grasshopper (*Hieroglyphus banian*) in the Chingleput district. It also feeds on young crabs destructive to paddy seedlings in the Tanjore deltaic area. An objectionable trait of this bird is its chicken-eating propensities.

The Brahminy Kite begins to breed in Coimbatore at the close of the north-east monsoon, and continues up to March. The eggs are placed in a nest of sticks lined with down; eggs usually white and finely mottled light brown.

The Pariah Kite (*Milvus govinda*) (*Tam.* and *Mal.* Parundu; *Tel.* Gedda) has its upper plumage brown; light-brown on head and neck. Tail light-brown below, darker above. Total length about 20 inches. Irides brown. A highly beneficial bird, found in large numbers in towns and villages. A feeder on garbage of all kinds. A useful scavenger. An occasional chicken is taken by this bird; but it is

not so great an offender as the Brahminy Kite in this respect. This kite breeds nearly throughout the whole year, constructing a nest of twigs lined with rags, etc. Two or three greenish white eggs, mottled brown, are laid.

The Pale Harrier (*Circus macrurus*, Gmel.) (*Tam.* Laghudu; *Tel.* Bolli-gedda) has the upper plumage pale ashy-grey tinged with brown on the crown and scapulars. A circular ring round the chin across back of head whitish. Tail-coverts white barred with brown. Lower plumage whitish with grey streaks. The male and female plumage differ in many respects, the brown predominating in the female. Total length about 19 to 20 inches. A visitor to Coimbatore from September till April. A standing menace to chickens. A low flier generally eating its prey seated on slight elevations on the ground. Due to its chicken-stealing propensities, the mallophagous lice of the domestic fowl also infest this bird. The Pale Harrier does not breed in Indian limits.

The Sparrow-hawk (*Accipiter nisus*, Linn.) (*Tam.* Ōnān-adiki; *Mal.* Prā-pitivan; *Tel.* Dēga) has the upper plumage slate-grey with white spots and streaks to the quills and feathers. (Vide fig. 21.) Tail grey, barred and tipped with white. Thigh-coverts white, barred with brown. Irides brownish-



FIG. 21 The Sparrow-hawk (*Accipiter nisus*). (Original)



yellow. Length about 14 inches. A migratory bird visiting Coimbatore from September to March. A beneficial bird, keeping down lizards and large-sized grasshoppers. Breeds on the Himalayas

*Columbidae* or the Pigeon family is entirely frugivorous and when occurring in large numbers especially the Turtle Doves and the Rock Pigeons damage ripening cereals to a considerable extent.

The Southern Green Pigeon (*Crocopus chlorogaster*, Blyth.) (*Tam.* Pachai-purā; *Tel.* Pacha-pāvu-rāyī) has its breast and abdomen greenish-yellow. Scapulars deep green and quills streaked with black. Total length about 12 inches. Irides blue. A bird of neutral value to the agriculturist. A table bird of first-rate importance. Feeds on *figs* fruits and tender shoots. Occurs in flocks. Natural haunts and breeding places on the hills. Does not breed in the plains of Coimbatore.

The Indian Blue Rock Pigeon (*Columba intermedia*) (*Tam.* Māda-purā. *Mal.* Ambala-prāvu; *Tel.* Gudī-pāvu-rāyī). General colouration slaty-grey with a bluish iridescent metallic gloss at the collar region. Two black bands across the wings. Total length a little more than a foot. Legs deep pink. Irides orange. A sacred bird of the temples and mosques. When encouraged will easily nest in human habitations. A gregarious bird, often living



in large societies. It is a table bird both with Europeans and Indians. Owing to its exclusive graminivorous habits the bird is a real pest to growing cereals. Any convenient site in rocks, houses or temples or even in wells is chosen by this pigeon for nesting. Two white eggs are generally laid. The breeding season commences quite in the beginning of the year and continues up to June.

The Spotted Dove (*Turtur suratensis*, Gmel.) (*Tam.* Manipurā; *Mal.* Ari-prāvu; *Tel.* Podalaguvva) is coloured brownish-grey. Upper plumage mottled ashy-white. Terminal portions of quills streaked with black. Length about a foot. Irides light black. A favourite game bird, often shot in pairs during the breeding season. Certainly an injurious bird due to its confirmed graminivorous habits. Freely feeds on grain left out to dry in the vicinity of granaries. Breeds throughout the year in suitable localities on trees where it constructs a nest of twigs and sticks lined with dry leaves and lichen. Two white eggs are laid.

The Indian Ring Dove (*Turtur risorius*, Linn.) (*Tam.* Perum-purā; *Tel.* Badi-guvva). The head is coloured deep ashy-grey. Neck glossed with lilac in certain lights. Black collar round the basal portion of neck. Tail-feathers streaked with black. Total length 12 to 13 inches. Irides blood-red. A bird of

the scrub-jungle and cultivated tracts. Exclusively graminivorous. A table bird of delicate quality. Harmful to the agriculturist when occurring in numbers. This Ring Dove is not so common in Coimbatore as the Spotted Dove. The nest is the usual structure of twigs laid across the fork of a low bush or tree. Two white eggs are laid.

The Red Turtle Dove (*Ænopopelia tranquebarica*, Herm.) (*Tam.* Kallipurā; Thavuttupurā). Upper plumage reddish-brown. The rest ashy-grey. Streaks to wings and the collar, black. Tail-coverts beneath, white. Females and young birds are more ashy-white in colouration than males. Length about 9 inches. Irides brown. A small-sized dove. A good table bird, often found in numbers in cultivated tracts. Habits much the same as the two preceding species. Injurious to ripening cereals when occurring in numbers. Nidification as that of *Turtur risorius*, except that the nests are often found in exposed situations.

The Fowl family (*Phasianidæ*) constitute the Jungle Fowl, Partridges, Quails, etc. These form good game birds. Excepting the Partridge, the other members of the family are of neutral value from the cultivator's point of view.

The Grey Jungle Fowl (*Gallus sonnerati*, Temn.) (*Tam.* and *Mal.* Kāttu-kōzhi; *Tel.* Adavi-kōdi).

The colouration of the head in the male, black. Wings dull red, black-edged and streaked with glossy-yellow. The general colour is chestnut. Lower plumage soft brown. The female has the under plumage ashy-white and the upper brown, changing to dark-brown towards the tail which is mottled with black. Length of male 30 inches; female 18 inches. A forest bird. Shy by nature and difficult to be got at by the inexperienced sportsman. Abounds in submontane tracts. About ten to twelve eggs are laid in a hole or depression in the ground, on a soft lining of dry leaves. Nests covered over with leaves as a sort of protection during absence of brooding hens have been noted. It is of neutral value to the agriculturist, but a game bird of prime importance. The Jungle Fowl breeds during the hot weather preceding the south-west monsoon.

The Grey Partridge (*Francolinus pondicerianus*, Gm.) (*Tam.* Kowdhāri; *Tel.* Kamuju). Head brown. Upper plumage light-brown finely barred and streaked with chestnut. Throat ashy-white, spotted with black. Total length about a foot. A common bird, found in the vicinity of cultivated tracts, and commonly inhabiting prickly-pear areas. A game bird associating sometimes in coveys. Cocks are caged, tamed and used as decoys to net the wild partridges. Beneficial to the cultivator as

it destroys large numbers of grasshoppers, winged termites and beetle pests of sorts. Seven or eight white eggs are laid in holes in the ground. The nest is lined with dry grass. This partridge breeds in Coimbatore during the summer months and then again at the close of the south-west monsoon.

The *Rallidae* or the Coot family is represented in South India by three common species.

*Amaurornis phoenicurus*, Penn. The White-breasted Water-hen. (*Tam* Kānānkōzhī; *Mal.* Mundakōzhī). Forehead, throat and breast white, body above dark-green, vent and under tail-coverts chestnut. Length 12 to 13 inches. A shy bird always getting under cover when she is observed. Abounds in cultivated areas, mostly in wet lands. A bird of confirmed insectivorous habits. Observed to feed on the paddy swarming caterpillar pest (*Spodoptera mauritia*) in North Malabar. Nests are constructed on forks of water-plants where about half a dozen eggs are laid. The eggs are brownish-yellow blotched with red and purple. The White-breasted Water-hen breeds from April to October.

*Porphyrio poliocephalus*, Lath. The Purple Moorhen (*Mal.* Thāvakōzhī). General colouration purple and blue with an iridescent tinge at the breast. Lower tail-coverts white. Total length 17 inches. The food of this moorhen is mainly vegetable, it dives

and cuts up the tender portions of the roots and stems—in the early stages—of a tall-growing variety of paddy which is cultivated in Malabar in swampy areas. Later on, the fowl changes its habits and attacks the earheads. The Purple Moorhen breeds during the south-west monsoon in large permanent sheets of water. Eight or nine pink eggs mottled with grey are laid in a water-tight nest attached to reeds or other aquatic plants.

The Coot (*Fulica atra*, Linn.) (*Tam.* Rāma-kōzhi) which is in general colouration black to blueblack, the latter colour more pronounced in the collar region. Lower plumage paler. Wings edged with ashy-white. The bird measures 16 inches. Found in large marshy tanks. In habits, resembling the Teal and the Duck. Commonly found in pairs. The nest is a floating one constructed of reeds and water-plants, rendered water-tight with fine grass, etc. About eleven eggs have been obtained from a single nest. The Coot has been observed to breed in and around Coimbatore during September and October, although it is likely that the bird breeds during other periods of the year as well. In spite of its fishy taste, the bird is good eating.

The Red-wattled Lapwing (*Sarcogrammus indicus*, Bodd.) (*Tam.* Āl-kātti; *Mal.* Itti-pul) belongs to the family *Charadriidæ*. A broad white

streak from eye to neck, rest of head and crown black. Wings brownish-black. Tail white streaked with black. Breast white. Length about 12 to 14 inches. Irides brown. Wattle and space round eyes, red. These Lapwings are found in scattered flocks, in grass land and open ground preferably in the vicinity of sheets of water. A bird of insectivorous habits. A beneficial bird. The oft-repeated call of this bird has given it many a curious appellation in most languages, the English version of this call having been likened to "pity-to-do-it" and "did-you-do-it." The bird lays about four eggs in a hole in the ground under brushwood and other hidden localities. The eggs are pale yellow with brown spots. The breeding season commences in late February and lasts up to September.

The Pintail and Fantail Snipes (*Gallinago stenura*, Kuhl., and *Gallinago caelestis*) (Tam. Kōrai-kuthi-ullān) have the crown black and head brown streaked with black. Sides of head white. Wings blackish brown, white-tipped and blotched with black. Lower plumage dull-white barred with brown. Irides brown. Length 10 to 11 inches. Winter visitants to Coimbatore arriving here by October and leaving in March. Game birds of prime importance. In habits, insectivorous. Both these Snipes are visitors to cultivated wetlands. They do not breed in Coimbatore.

The Little Cormorant (*Phalacrocorax javanicus*, Horsf.) (*Tam.* Neerkākkā ; *Tel.* Neatikāki) is a representative of the Cormorant family (*Phalacrocoracidae*). General colour black glossed with green. Wings dark-grey. Legs dark slaty-black. Length about 19 inches. Found in all big tanks and slow running rivers and marshes. Fish is the normal diet. The bird has the peculiar habit of swimming under water with the long snake-like neck above the water-line. A gregarious bird often living in large societies especially during the breeding season. The nesting is done on trees in the vicinity of large sheets of water. Four eggs are laid. The breeding season commences in February and runs up to June. The bird is often shot and eaten in spite of its "fishy" taste.

The White-necked Stork (*Dissura episcopus*, Bodd.) (*Ciconiidae*) (*Tam.* Karunārai). Crown, wings and upper plumage black, more or less glossed with green and purple. Rest of plumage white. Bill black. Legs reddish-brown. Irides red. Total length 3 feet. Found in flocks, rarely singly in wet lands and large tanks. A crab catcher in paddy fields. Highly beneficial where they occur gregariously. Does not breed in Coimbatore.

The Common Heron (*Ardea cinerea*, Linn.) (*Ardeidae*) (*Tam.* Narayān ; *Mal.* Kandy-kāppan ;





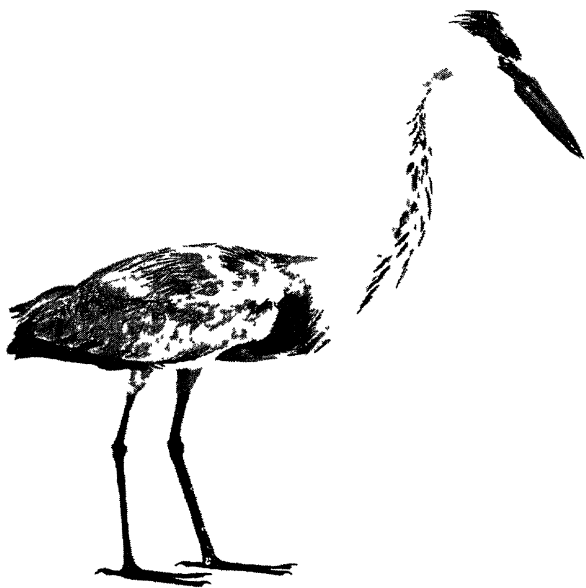


FIG. 22. The Common Heron (*Ardea cinerea*).  
(Original )

*Tel.* Nārāyana-patchi). (Vide fig. 22.) Head whitish with a purple streak to eye. Neck white glossed with ashy-grey. Two streaks of indented black lines running from under side of throat to abdomen. Length rather less than  $3\frac{1}{2}$  feet. A common bird in paddy flats and large tanks uttering in slow succession during flight a characteristic loud croak. A shy bird and difficult to get at. Eaten by Indians. The bird has a fishy taste. A bird of neutral value to the agriculturist. This bird commonly breeds in societies. Three green eggs are laid in a roughly constructed nest of twigs on tall trees.

The Cattle Egret (*Bubulcus coromandus*, Bodd.) (*Tam.* Unni-kokku ; *Mal.* Vella-kocha ; *Tel.* Tella-konga). Pure white ordinarily but turns to buff during breeding season, especially at the head and neck and dorsum. Irides yellow. Feet black. Total length about 20 inches. The Cattle Egret is a gregarious bird, found in abundance throughout this district, in watered areas as well as dry lands where they follow cattle persistently. A beneficial bird with well-developed insectivorous tendencies. A bird to be protected where it occurs. It breeds on trees found in the midst of large permanent sheets of water. The usual nest of twigs is constructed and about four light green eggs are laid. The breeding season commences in October and is over in January.

The Pond Heron or the Paddy Bird (*Ardeola grayi*, Sykes) (*Tam.* Madayān, Pottai-kokku; *Mal.* Kocha; *Tel.* Guddi-kokkara). (Vide frontispiece.) Upper plumage brown streaked with grey. Breast white and streaked greyish-brown. Wings ashy-brown, striped with pale yellow. Under tail-coverts and lower plumage white. Upper plumage turns to light chocolate-brown during breeding season. Irides yellow. Total length  $1\frac{1}{2}$  feet. A crab-eater. A highly beneficial bird in paddy fields where young seedlings are cut up by immature crabs. Shot and eaten by the majority of Indians. A common bird cryptically coloured when at rest and flying with loud croaks when disturbed, in the full display of its white plumage. The usual nest of twigs is constructed during the cold season in November to January and four to five azure eggs are laid.

The Common Teal (*Nettion crecca*, Linn) (*Anatidæ*) (*Tam.* Siravi, Kiluvai; *Mal.* Kokkanpullu.) (Vide fig. 23.) The male has the head and neck light-brown. A glossy green streak to eye. Upper plumage brown streaked with black. Abdomen white. The female has the breast speckled-brown. Total length 13 to 15 inches. Irides brown. A migratory bird visiting this district from October to March. Stragglers found in April. A serious pest to ripening paddy, especially when wetlands

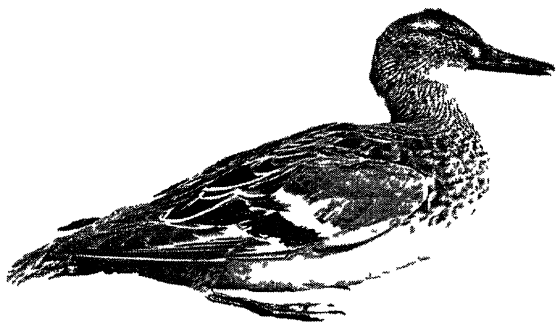


FIG. 23. The Common Teal (*Nettion crecca*).  
(Original.)



happen to be flooded. An excellent table-bird. Affords most exciting game. Does not breed in South India.

The Indian Little Grebe or Dabchick (*Podiceps albipennis*, Sharpe) (*Podicepsidae*) (Tam. Mukkulupān; Tel. Munugudi-kōdi). Upper plumage including that of the head dark-brown. A chestnut patch extending along cheeks, neck and throat. Abdomen ashy-white. Length about 9 inches. Irides brown. A permanent resident in large tanks and marshy ground. A bird of neutral value to the agriculturist. Rarely shot and eaten on account of its small size and fishy taste. Usually four white eggs are laid in a floating nest of reeds. This Grebe breeds during September to December in and around Coimbatore.

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